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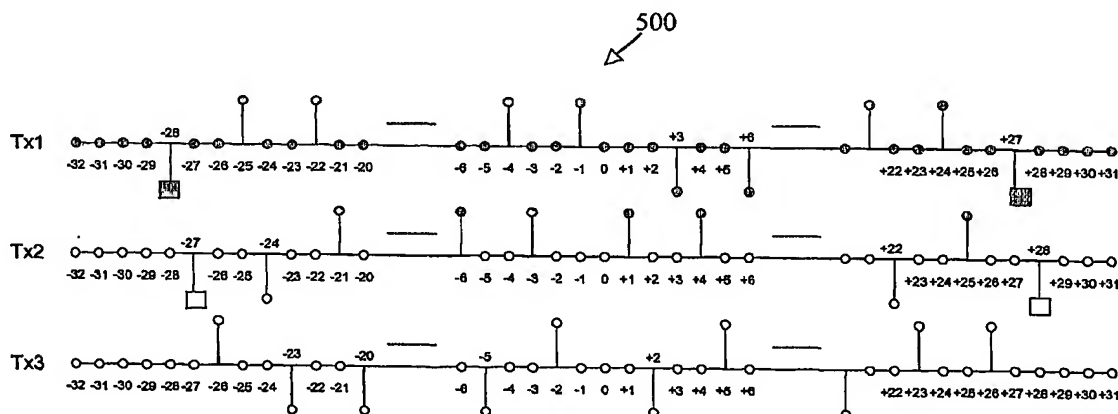
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(54) Title: METHODS AND APPARATUS FOR BACKWARDS COMPATIBLE COMMUNICATION IN A MULTIPLE INPUT MULTIPLE OUTPUT COMMUNICATION SYSTEM WITH LOWER ORDER RECEIVERS



(57) Abstract: A method and apparatus are disclosed for transmitting symbols in a multiple antenna wireless communication system, such that the symbols can be interpreted by a lower order receiver (i.e., a receiver having a fewer number of antennas than the transmitter). For example, subcarriers from one or more symbols can be transmitted such that each of the subcarriers are active on only one of the antennas at a given time. In one implementation, the subcarriers are diagonally loaded across logically adjacent antennas. The symbols can include one or more long training symbols and optionally a SIGNAL field that indicates a duration that a receiver should defer until a subsequent transmission. In this manner, a transmitter in accordance with the present invention may be backwards compatible with a lower order receiver and a lower order receiver can interpret the transmitted symbols or defer for an appropriate duration.

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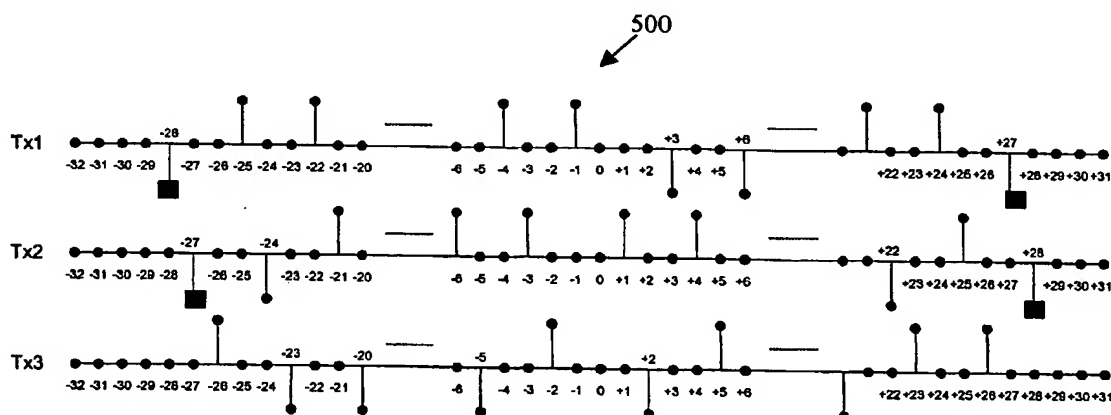
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